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Michael Burns
MICHAEL BURNS

**TRANSMITTAL LETTER TO THE U.S. DESIGNATED OFFICE (DO/US)--
ENTRY INTO THE U.S. NATIONAL STAGE UNDER CHAPTER I**

| | | |
|---|--------------------------------------|---|
| PCT/EP00/03156 | 08 April 2000 | 14 May 1999 |
| International Application Number | International Filing Date | International Earliest Priority Date |

Invention Title: **CLOSURE MEMBER FOR AN INSTALLATION OPENING IN A SHIFT MECHANISM
FOR BICYCLES**

Applicants: **WESSEL, Robert**

Box PCT
Assistant Commissioner for Patents
Washington D.C. 20231
ATTENTION: DO/US

1. Applicant herewith submits to the United States Designated Office (DO/US) the following items under 35 U.S.C. 371:

2. A copy of the International application as filed (35 U.S.C.371(c)(2))
3. A translation of the International application into the English language (35 U.S.C. 371(c)(2))
4. A check in the amount of \$860.00 covering the filing fee.

II. Other document(s) or information included: Preliminary amendment

Date: January 16, 2001

Werner H. Stemer
SIGNATURE OF PRACTITIONER
WERNER H. STEMER
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RWS-14863 WO

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Robert Wessel

Applic. No.: PCT/EP00/03156

Filed : Concurrently herewith

Title : CLOSURE MEMBER FOR AN INSTALLATION OPENING IN A SHIFT
MECHANISM FOR BICYCLES

P R E L I M I N A R Y A M E N D M E N T

Hon. Commissioner of Patents,
Washington, D. C. 20231

Sir:

Preliminary to examination kindly amend the above-identified application as follows:

In the Translated Specification:

Page 1, line 6, change "Description" to

-- Background of the Invention:

Field of the Invention: --.

Page 3, above line 4, , insert -- Summary of the Invention: --;

above line 18, insert -- Brief Description of the Drawings: --.

Page 4, above line 5, insert -- Description of the Preferred Embodiment: --.

Page 7, line 1, change "Patent claims" to -- I claim: --.

In the Claims:

Claim 3, line 1, delete "or 2".

Claim 4 (amended). The closure member as claimed in [one of claims 1 to 3] claim 1, characterized in that the closure member (1) has a molded recess (8) that enables the closure member (1) to be opened like a hinge.

Claim 5 (amended). The closure member as claimed in [one of claims 1 to 4] claim 1, characterized in that the closure member (1) has an upper lip (9) that comes to rest over the edge of the installation opening (4).

Claim 6 (amended). The closure member as claimed in [one of claims 1 to 5] claim 1, characterized in that the closure member (1) has a lower lip (10) at least at the point furthest away from the extension (6), said lower lip sliding under the edge of the installation opening (4) after the closure of the installation opening (4) by the closure member (1).

Claim 7 (amended). The closure member as claimed in [one of claims 1 to 6] claim 1, characterized in that the edge of the installation opening (4) in a housing (2a) has an offset (12) on which an upper lip (12a) of a closure member (1a) can be placed so that the latter can be arranged in a recessed manner on the shift mechanism (3).

Remarks:

The preliminary amendment is being filed in an effort to present an application in proper U.S. format and to eliminate multiple dependencies.

An early action on the merits of the claims is requested.

Respectfully submitted,



For Applicant

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/tk

January 16, 2001

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Closure member for an installation opening in a shift
mechanism for bicycles

5

Description

The invention relates to a closure member for an installation
opening in a housing of a shift mechanism for bicycles, made
of rubber-elastic material, this installation opening

10 preferably being suitable for installing a cable for a Bowden
line, which can be pulled out of this installation opening if
damage has occurred to the Bowden transmission.

US Patent 5,134,897 has disclosed a twist-grip shift that has
15 a grip with a cable reel onto which a cable for operating a
set of bicycle gears can be wound. The cable ends in a nipple
that can be fixed in the cable reel, the cable reel moving in
a housing that is mounted on the bicycle and has an opening
that comes to lie over the nipple in a particular position of
20 the cable reel, allowing the cable to be pulled or pushed
nipple first through the opening in the housing. The cable can
be reinstalled in the same way that it is removed. The
position of the nipple relative to the opening in the housing
is shown particularly by Figs 3, 6, 8 and 12.

25

However, there is no covering for the opening in the housing to prevent dirt from penetrating into the sensitive bearing arrangement of the cable reel. On the contrary, the design is such that covering is not possible because the opening

5 simultaneously serves as a window for the figures arranged on the cable reel to indicate the gear selected. In this case, the opening could at best be covered by a transparent sheet.

However, coverings for openings in the housing of a shift
10 mechanism for the installation of a cable together with its nipple are known and are sold in large quantities by the applicant. In the event of cable repair, however, the coverings are quickly lost because of their small size, and they must subsequently be replaced. The subject matter of the
15 invention covered by this application relates to loss-proofing of a closure member that can be used to close this abovementioned installation opening as many times as desired without being lost or being damaged during installation. This is achieved through the selection of material and the
20 arrangement of the closure member on the housing. Since the closure member does not have to transmit any significant forces or have any significant forces acting on it, it can be made from relatively soft rubber-elastic material and be provided with an extension that can be secured on the housing,
25 the closure member hanging from the housing by means of the

extension once opened, and remaining available for subsequent closure of the installation opening.

The invention has thus set itself the object of providing a
5 closure member for an installation opening in a housing of a shift mechanism for bicycles that is made of rubber-elastic material, can be opened as many times as desired and can be closed reliably, a means of preventing loss ensuring that the closure member does not get lost during the installation of
10 the cable.

The way in which this is achieved is disclosed in the characterizing part of the main claim and in the subclaims.

An exemplary embodiment of a closure member for a housing on a
15 shift mechanism is explained with reference to a number of diagrams, where:

Fig. 1 shows a closure member with an extension in a housing of a shift mechanism in a partially sectioned representation;

20 Fig. 2 shows the opened closure member with an upper lip and a lower lip for fixing the closure member on the edge of an installation opening in the housing;

25 Fig. 3 shows how the edge of the installation opening is formed by an offset;

Fig. 4 shows the arrangement of the installation opening on the shift mechanism.

5 If 1 denotes a closure member for a housing 2 of a shift mechanism 3, this closure member is secured in a loss-proof manner in an installation opening 4 by means of an extension 6 inasmuch as the extension 6 is arranged in such a way that it can be inserted behind a holding member 5, the end of the
10 extension 6 comprising a thickened portion 7 that is supported against the housing 2 and the holding member 5 in such a way that the closure member 1 can no longer be pulled out of the anchorage thus formed. The closure member 1 furthermore has an upper lip 9 that runs at least part of the way round on the
15 upper surface of the housing 2 of the shift mechanism 3 and comes to rest over the edge of the installation opening 4 when the closure member 1 has closed the installation opening 4.

Fig. 1 shows how the upper lip 9 seals the installation
20 opening 4 against dirt or water penetration. A lower lip 10, which likewise runs at least part of the way round on the inside of the housing 2 prevents the closure member 1 from opening spontaneously once closed.

25 Fig. 2 illustrates how the closure member 1 exposes the installation opening 4 when opened. Here, a molded recess 8

equivalent to a neck is employed and acts like a hinge, the extension 6 together with the thickened portion 7 behind the holding member 5 remaining stationary without being affected by the movement of the closure member.

5

According to Fig. 3, the edge of the installation opening is modified in such a way that an upper lip 9a comes to rest on an offset 12 in a housing 2a, it being possible to recess a modified closure member 1a at least partially into the

10 installation opening 4 in the closed state, with the result that the upper lip 9a no longer extends beyond the profile of the housing 2a and forms a more elegant means of closure.

Fig. 4 shows an installation opening which, when a cable 13 is in a particular position, reveals a nipple 11 of the cable 13 when the closure member 1 is open, it being possible either to pull the nipple out through the installation opening 4 with a tool or to push it through the installation opening 4 when the cable 13 is being pushed in from outside the shift mechanism

20 3.

The closure member 1,1a can be anchored easily in the housing 2 of the shift mechanism 3 by means of the holding member 5, which can be formed easily by an injection-molding technique, providing the advantage compared with the previous solution of

25 a simple cap that a closure member 1,1a with a safeguard

against loss is obtained. The recessable sealing lip 9a might be mentioned as a further refinement, said lip enhancing the appearance of the housing 2a in the area of the installation opening 4.

Patent claims

1. A closure member (1) for an installation opening (4) in a housing (2), in particular in a shift mechanism (3) for bicycles, made of rubber-elastic material, characterized in
5 that the closure member (1) has an extension (6) that extends into the interior of the housing (2) and can be connected to the housing (2) by means of an assembled joint.
2. The closure member as claimed in claim 1, characterized in
10 that the housing (2) has a holding member (5) that positions the extension (6) in the housing (2).
3. The closure member as claimed in claim 1 or 2,
characterized in that the extension (6) has a thickened
15 portion (7) that holds the extension (6) in its position on the holding member (5), even under tensile loading stemming from the closure member (1).
4. The closure member as claimed in one of claims 1 to 3,
20 characterized in that the closure member (1) has a molded recess (8) that enables the closure member (1) to be opened like a hinge.
5. The closure member as claimed in one of claims 1 to 4,
25 characterized in that the closure member (1) has an upper lip

(9) that comes to rest over the edge of the installation opening (4).

6. The closure member as claimed in one of claims 1 to 5, characterized in that the closure member (1) has a lower lip (10) at least at the point furthest away from the extension (6), said lower lip sliding under the edge of the installation opening (4) after the closure of the installation opening (4) by the closure member (1).

10

7. The closure member as claimed in one of claims 1 to 6, characterized in that the edge of the installation opening (4) in a housing (2a) has an offset (12) on which an upper lip (12a) of a closure member (1a) can be placed so that the latter can be arranged in a recessed manner on the shift mechanism (3).

15

Abstract

The invention relates to a closure member for an opening in an assembly on a housing for a bicycle gear box. Said closure member, consisting of a rubber elastic material, is captively
5 connected to the housing by an extension and can be swung open and closed in a similar manner to a hinge. The confirmation can be optically improved by the formation of an upper lip.

Fig. 1

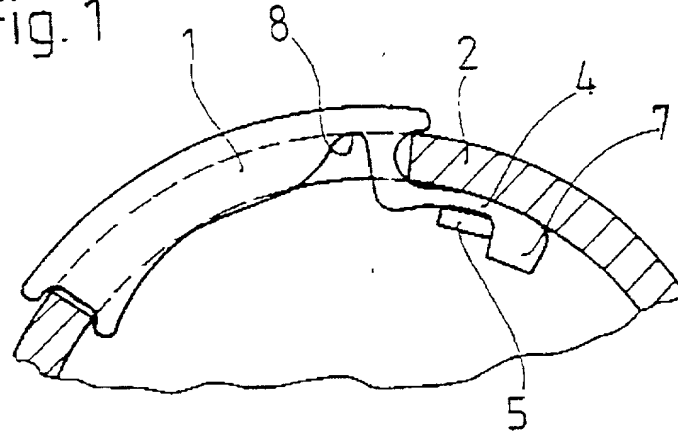


Fig. 2

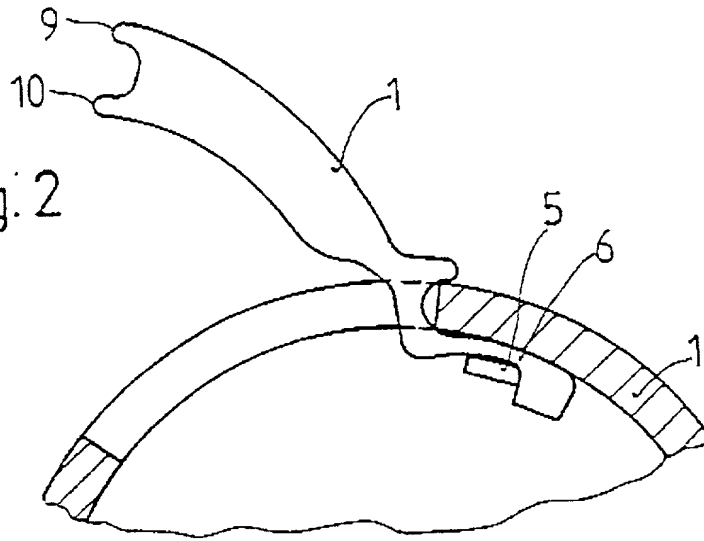


Fig. 3

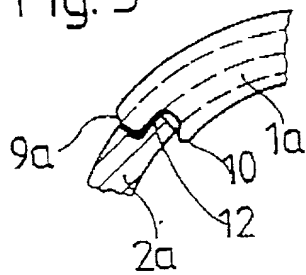
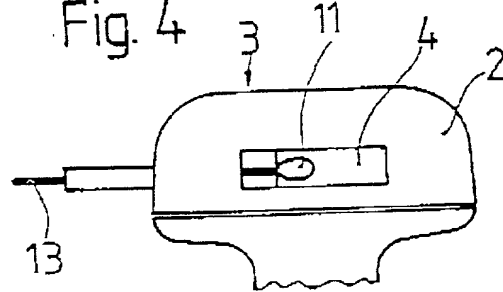


Fig. 4



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SRAM DEUTSCHLAND GMBH

Practitioner's Docket No.: RWS-14069

PATENT

COMBINED DECLARATION AND POWER OF ATTORNEY

(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,
CONTINUATION, OR C-1-P)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is for a national stage of PCT application.

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

CLOSURE MEMBER FOR AN INSTALLATION OPENING IN A SHIFT MECHANISM FOR BICYCLES

SPECIFICATION IDENTIFICATION

The specification is attached hereto.

ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56.

PRIORITY CLAIM (35 U.S.C. § 119(a)-(d))

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

Such applications have been filed as follows.

PRIOR PCT APPLICATION(S) FILED WITHIN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119(a)-(d)

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| INDICATE IF PCT | APPLICATION NUMBER | DATE OF FILING DAY, MONTH, YEAR | PRIORITY CLAIMED UNDER 36 USC 119 |
|--------------------|--------------------|------------------------------------|--|
| PCT | PCT/EP00/03156 | 08 April 2000 | |
| | 100 22 327.0 | 14 May 1999 | yes |

POWER OF ATTORNEY

I hereby appoint the following practitioner(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

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DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE


ROBERT WESSEL

Inventor's signature 

Date January 15, 2001

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